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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,704	12/21/2001	Denis Jean	98,485-E	6368

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EXAMINER
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TALBOT, BRIAN K

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/036,704

Applicant(s)

JEAN, DENIS

Examiner

Brian K Talbot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-9, 17-21 and 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-16 and 22-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: \_\_\_\_\_

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1. Claims 1-27 remain in the application.
2. Applicant's election of Group II, claims 10-16 and 22-24, in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 1-9, 17-21 and 25-27 should be canceled in response to the Action in order to advance prosecution of the remaining claims.

### *Claim Objections*

3. Claim 10 is objected to because of the following informalities:

The term "which" appears to have been inadvertently left out between the terms "ink" and "provides". Appropriate correction is required.

Claim 13 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. The dependent claims (claim 10) already recites graphite powder, carbon black and silver flakes. Cancellation of the duplicate subject matter is required

Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. The dependent claims (claim 10) already recites methanol. Cancellation of the duplicate subject matter is required.

***Specification***

4. The disclosure is objected to because of the following informalities:

The disclosure recites " $\Omega$ /square/15 $\mu$ m". Clarification is requested.

The disclosure recites "PCI, ISA and AMR". The Examiner requests the terms full spelling for clarification.

The term "grind", pg. 10, line 24, appears to have been a typographical error.

The use of the trademarks Carbitol® and Cellusolve® have been noted in this application. They should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 10-12 and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 10-12 the units " $\Omega/\text{square}/15\mu\text{m}$ " is confusing.

With respect to claims 15 and 16, the term "grind" should have been recited as "grain".

With respect to claim 14, the trademark "carbitol" should be capitalized. Furthermore, the use of a Trademark in a claim renders the claim vague and indefinite as the trademark may change overtime. The Examiner suggests deleting such trademarks and inserting the generic terminology.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-16 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Research Disclosure or Applicant's admitted state of the art (pg. 2) in combination with either Fouts, Jr. et al. (4,545,926) or Gold Substitute, "Goldstone #3000 conductive overprint ink".

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Research Disclosure teaches a low cost edge tabs for circuit cards and hybrid substrates. A special filled polymer resistor ink is printed over the copper edge connector pads. The resistor ink is applied over copper pads instead of gold or other metals. The resistor ink has good wear resistance and protects the copper pads from the environment.

Applicant's admitted state of the art (pg. 2) teaches that it is well known in the art to apply a layer of nickel and gold over copper edge connectors on printed circuit boards.

Research Disclosure and Applicant's admitted state of the art (pg. 2) are silent on the sheet resistivity and the components which make-up the composition.

Fouts, Jr. et al. (4,545,926) teaches a conductive polymer composition comprising conductive particles and a particulate filler useful for electronic devices. The conductive particles include nickel, silver, gold and graphite and can be in the form of flakes, rods or particles having a size from 0.01 to 200 microns. A filler like carbon black can be added to the composition. The polymer utilized includes phenolics and epoxies. Other additives can be added. The composition has resistivities of less than  $10^{-3}$  ohm/cm.

Gold Substitute, "Goldstone #3000 conductive overprint ink" teaches a polymer finish, i.e., goldstone, as a viable option over the use of gold.

Therefore, it would have been obvious at the time the invention was made to have modified either Research Disclosure or Applicant's admitted state of the art (pg. 2) ink with either Fouts, Jr. et al. (4,545,926) or Gold Substitute, "Goldstone #3000 conductive overprint ink" conductive polymers because of the expectation of achieving the expected results as evidenced by Fouts, Jr. et al. (4,545,926) and Gold Substitute, "Goldstone #3000 conductive overprint ink".

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (703) 305-3775. The examiner can normally be reached on Tuesday-Friday 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-6078 for regular communications and (703) 305-6357 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3775.



Brian K Talbot  
Primary Examiner  
Art Unit 1762

BKT  
October 23, 2003